

REMARKS

This is intended as a full and complete response to the Office Action dated May 26, 2009, having an extended period for response set to expire on August 26, 2009. Please reconsider the claims pending in the application for reasons discussed below.

Claims 1-45 are pending in the application and remain pending following entry of this response. Applicants submit that the amendments do not introduce new matter.

Further, Applicants are not conceding in this application that those amended (or canceled) claims are not patentable over the art cited by the Examiner, as the present claim amendments and cancellations are only for facilitating expeditious prosecution of the claimed subject matter. Applicants respectfully reserve the right to pursue these (pre-amended or canceled claims) and other claims in one or more continuations and/or divisional patent applications.

Statement of Substance of Interview

On May 12, 2009, an in-person interview was held between Ross L. Franks (attorney of record), Randol Read (attorney) and the Examiner *Jain*. No exhibit was shown during the interview. Independent claims 1, 9, 20, 25, 30, 34, 37, 40 and 43 were discussed, with a focus on common elements included in claim 1. The *Akella et al.* reference (U.S. Publication 2003/0202492, hereinafter, “*Akella*”) was discussed. Proposed amendments to clarify subchannels are operated at different rates were discussed. Applicants submitted that *Akella* does not teach partitioning a control into subchannels and operating subchannels at different rates. Clarifying amendments to address 101 rejections were also discussed. No agreement was reached, other than an agreement to further search if/when the proposed amendments were entered.

Claim Objections

Claims 1, 5-6, 9, 25, 30 and 37 are objected to for reciting “transmitting the control channel.” These claims have been amended to recite “transmitting control information on the control channel.”

Claims 37 and 40 are objected to because of wording in the preamble. The preamble has been amended, as suggested in the Office Action.

Accordingly, Applicants respectfully request withdrawal of these objections.

Claim Rejections - 35 U.S.C. § 101

Claims 1-19 and 43-45 are rejected under 35 U.S.C. § 101 as not falling within one of the four statutory categories of invention.

Applicants respectfully submit, however, that the series of operations performed in the claims are tied to a particular apparatus (an access point for claims 1-19 and a user terminal for claims 43-45). Further, the claims transform underlying subject matter. For example, claims 1-19 transform control information in a manner that allows the control information to be transmitted on subchannels operated at different data rates.

For at least these reasons, Applicants submit claims 1-19 and 43-45 are directed to statutory subject matter and request withdrawal of this rejection.

Claim Rejections - 35 U.S.C. § 103

Claims 1-4, 8-12, 24-25, 37-31 and 33-45 are rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over *Akella* in view of *Wilson et al.* (U.S. Publication 2004/0176097, hereinafter, “*Wilson*”).

Applicants respectfully traverse these rejections.

The Examiner bears the initial burden of establishing a *prima facie* case of obviousness. See MPEP § 2141. Establishing a *prima facie* case of obviousness begins with first resolving the factual inquiries of *Graham v. John Deere Co.*, 383 U.S. 1 (1966). The factual inquiries are as follows:

- (A) determining the scope and content of the prior art;
- (B) ascertaining the differences between the claimed invention and the prior art;

- (C) resolving the level of ordinary skill in the art; and
- (D) considering any objective indicia of nonobviousness.

Once the *Graham* factual inquiries are resolved, the Examiner must determine whether the claimed invention would have been obvious to one of ordinary skill in the art.

Applicants respectfully submit that the Examiner has not properly characterized the teachings of the references and, as a result, has failed to ascertain differences between the claimed invention and the prior art. Accordingly, a *prima facie* case of obviousness has not been established.

For example, the Examiner relies on paragraphs [0030], [0032], and [0040] of *Akella* as teaching *partitioning a control channel used to transmit control information into a plurality of subchannels*, as recited in claim 1. These paragraphs are listed below for convenience:

[0030] According to the CDMA2000 and UMTS technical standards, data transmitted on the forward links is transmitted using Quadrature-Phase Shift Keying (QPSK) which involves the data on a single channel being spread across both the In-phase (I) and the Quadrature-phase (Q) subchannels. By transmitting data on both channels, the two subchannels remain balanced (on average), therefore issues such as peak-to-average ratio (PAR) does not become a significant problem.

[0032] Note that the following discussion may focus upon CDMA2000 and UMTS compliant wireless communications networks and the allocation of channels onto I and Q subchannels of a reverse communications link. However, it should be noted that the present invention is not limited to the allocation of channels in a reverse link. Channels in a forward link may also be allocated onto the forward link's I and Q subchannels to help balance usage.

[0040] Once the channel is allocated, information regarding the channel allocation is provided back to the mobile station transmitter/channel controller 305 (step (3)). The information provided may include the subchannel (I or Q) and the Walsh code to be used. The mobile station transmitter/channel controller 305 may then initiate a new call or a new channel by transmitting a control message (step (4)) to the base station. In the CDMA2000 technical standard, the control message used is referred to as a Layer 3 message and it may indicate which subchannel the new call or new channel is going to use. The base station acknowledges

the control message transmitted by the mobile station with a control message (again, in CDMA2000, it is another Layer 3 message) of its own (step (5)). With the reception of the control message from the base station, the mobile station can commence use of the new call or new channel (step (6)).

Applicants respectfully submit, however, that these paragraphs do not teach partitioning a control channel into subchannels but, rather, teach an algorithm where “Channels in a forward link may also be allocated onto the forward link's I and Q subchannels to help balance usage” as described in paragraph [0032]. As described therein, the algorithm helps balance traffic by distributing channels between Binary Phase Shift Keying (BPSK) In Phase (*I*) and Quadrature Phase (*Q*) subchannels, but the algorithm does not *partition a control channel into subchannels* as recited in the claims.

The Examiner acknowledges that *Akella* fails to teach operating partitioned subchannels at different data rates, but relies on *Wilson* as disclosing this feature. However, as noted above the Examiner has failed to properly construe the teachings of *Akella*. Accordingly, Applicants submit that, even if combined, *Akella* and *Wilson* fail to teach each and every element recited in claim 1. Claims 9, 20, 25, 30, 34, 37, 40 and 43 recite similar elements as claim 1 that are not taught in *Akella* and *Wilson*.

Accordingly, Applicants submit these claims, as well as their dependents are allowable and respectfully request withdrawal of this rejection.

Claims 5-7, 22-23, 26 and 32 are rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over *Akella* in view of *Wilson* and further in view of *Kadous* (U.S. Publication 2003/0165189).

These claims each depend from claims 1, 20, 25, and 30 which Applicants submit are allowable for at least reasons discussed above. Further, Applicants submit that *Kadous* fails to overcome the deficiencies in the teachings of *Akella* in view of *Wilson* discussed above.

Therefore, the claims are believed to be allowable, and allowance of the claims is respectfully requested.

CONCLUSION

Therefore, for at least the reasons presented above with respect to all of the pending claims subsequent to entry of this response, Applicants assert that all claims are patentably distinct from all of the art of record. All objections and rejections having been addressed, it is respectfully submitted that this application is in condition for allowance and a Notice to that effect is earnestly solicited. If any points remain in issue that the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

Charge Statement: For this application, the Commissioner is hereby authorized to charge any required fees or credit any overpayment to Deposit Account 17-0026.

Respectfully submitted,
QUALCOMM Incorporated
Customer Number: **23696**

Date: August 26, 2009

By: /Ross L. Franks/
Ross L. Franks, Reg. No. 47,233
Tel. No.: (858) 845-1946

QUALCOMM Incorporated
Attn: Patent Department
5775 Morehouse Drive
San Diego, CA 92121-1714
Telephone: (858) 658-5787
Facsimile: (858) 658-2502